NRI Integrated Program

FY 2003 Request for Applications

LETTER OF INTENT DEADLINE: **June 30, 2003**

APPLICATION DEADLINE: **July 30, 2003**

U.S. Department of Agriculture

Cooperative State Research, Education, and Extension Service

SUMMARY: The Cooperative State Research, Education, and Extension Service (CSREES) requests applications for the National Research Initiative (NRI) Integrated Program for fiscal year (FY) 2003 to support competitively awarded research, extension and education grants addressing key issues of national and regional importance to agriculture, forestry, and related topics. The amount available for support of these integrated programs in FY 2003 is approximately $30 million.

This notice identifies the objectives for these programs, the eligibility criteria for projects and applicants, and the application forms and associated instructions needed to apply for a grant under this authority. CSREES additionally requests stakeholder input from any interested party for use in the development of the next Request for Applications (RFA) for this program.

DATES: For the FY 2003 competition, a letter of intent is requested and is due by June 30, 2003. Applications must be received by close of business (COB) (5:00 p.m. Eastern Time) on July 30, 2003. Applications received after this deadline will not be considered for funding. Comments regarding this RFA are requested within three months from the issuance of this notice. Comments received after that date will be considered to the extent practicable.

ADDRESSES: Optional letters of intent may be submitted via facsimile or e-mail to the relevant program contacts listed below. Applications submitted via facsimile or e-mail will not be accepted. Applicants are strongly encouraged to submit the hard copies of their completed applications via overnight mail or delivery service to ensure timely receipt by USDA. The address for hand-delivered applications or applications submitted using an express mail or overnight courier service is: NRI Integrated Program; c/o Proposal Services Unit; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Room 1420, Waterfront Centre; 800 9th Street, S.W.; Washington, D.C. 20024; Telephone: (202) 401-5048.

Applications sent via the U.S. Postal Service must be sent to the following address: NRI Integrated Program; c/o Proposal Services Unit; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; STOP 2245; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-2245.

Written stakeholder comments should be submitted by mail to: Policy and Program Liaison Staff; Office of Extramural Programs; USDA-CSREES; STOP 2299; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-2299; or via e-mail to: RFP-OEP@reeusda.gov. (This e-mail address is intended only for receiving comments regarding this RFA and not requesting information or forms.) In your comments, please state that you are responding to the NRI Integrated Program RFA.

FOR FURTHER INFORMATION CONTACT: Applicants and other interested parties are encouraged to contact the individual indicated for more information about each program area listed below.

Functional Genomics of Animals: Peter Brayton; National Program Leader; Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-4399; Fax: (202) 205-3641; E-mail: pbrayton@csrees.usda.gov.

Functional Genomics of Insects and Mites: Mary Purcell-Miramontes; National Program Leader; Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-5168; Fax: (202) 401-6488; E-mail: mpurcell@csrees.usda.gov.

Functional Genomics of Microbes: Ann Lichens-Park, National Program Leader; Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6466; Fax: (202) 401-6488; E-mail: apark@csrees.usda.gov.

Functional Genomics of Plants: Ed Kaleikau; National Program Leader, Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6030; Fax: (202) 401-6488; E-mail: ekaleikau@csrees.usda.gov.

Air Quality: Ray Knighton; National Program Leader; Natural Resources and Environment; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6417; Fax: (202) 401-1706; E-mail: rknighton@csrees.usda.gov.

Human Nutrition and Obesity: Etta Saltos; National Program Leader; Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-5178; Fax: (202) 205-3541; E-mail: esaltos@csrees.usda.gov; or Susan Welsh; National Program Leader; Families, 4-H, and Nutrition; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 720-5544; Fax: (202) 720-9366; E-mail: swelsh@csrees.usda.gov.

Animal Biosecurity: Bob Smith; National Program Leader; Plant and Animal Systems; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6861; Fax: (202) 401-6156; E-mail: rsmith@csrees.reeusda.gov; or Peter Johnson; National Program Leader; Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-1896; Fax: (202) 205-3641; E-mail: pjohnson@csrees.usda.gov.

Plant Biosecurity: Kitty Cardwell; National Program Leader; Natural Resources and Environment; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-1790; Fax: (202) 401-6156; E-mail: kcardwell@csrees.usda.gov or Ed Kaleikau; National Program Leader, Competitive Programs; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6030; Fax: (202) 401-6488; E-mail: ekaleikau@csrees.usda.gov.

Homeland Security Training: Kitty Cardwell; National Program Leader; Natural Resources and Environment; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-1790; Fax: (202) 401-6156; E-mail: kcardwell@csrees.usda.gov or Bob Smith; National Program Leader; Plant and Animal Systems; Cooperative State Research, Education, and Extension Service; U.S. Department of Agriculture; Telephone: (202) 401-6861; Fax: (202) 401-6156; E-mail: rsmith@csrees.reeusda.gov.

STAKEHOLDER INPUT: CSREES is requesting comments regarding this RFA from any interested party. These comments will be considered in the development of the next RFA for the program. Such comments will be used to meet the requirements of section 103(c)(2) of the Agricultural Research, Extension, and Education Reform Act of 1998 (7 U.S.C. 7613(c)(2)). This section requires the Secretary to solicit and consider input on a current RFA from persons who conduct or use agricultural research, extension and education for use in formulating future RFAs for competitive programs. Comments should be submitted as provided in the **Addresses** and **Dates** portions of this announcement.

CATALOG OF FEDERAL DOMESTIC ASSISTANCE: This program is listed in the Catalog of Federal Domestic Assistance under 10.206.

Table of Contents

PART I--GENERAL INFORMATION

A. Legislative Authority and Background

Section 737 of the General Provisions of the Consolidated Appropriations Resolution, 2003 (Division A of Pub. L. 108-7) provides CSREES with the authority to use up to twenty percent of the amount made available in the Act for the National Research Initiative Competitive Grants Program (NRI), to carry out a competitive grants program under the same terms and conditions as those provided in Section 401 of the Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) (7 U.S.C. 7621).

Section 401 of AREERA established in the Treasury of the United States an account and authorized the Secretary of Agriculture to establish a research, extension, and education competitive grants program to address critical emerging U.S. agricultural and rural issues related to future food production; environmental quality and natural resource management; farm income; or rural, economic and business and community development policy.

B. Purpose, Priorities, and Fund Availability

The purpose of the NRI Integrated Program is to support research, extension and education grants that address critical emerging U.S. agricultural and rural issues. In awarding these grants, priority will be given to projects that are: (1) multistate, multi-institutional, or multidisciplinary; or (2) projects that integrate agricultural research, extension, and education. Integrated projects hold the greatest potential to produce and transfer knowledge directly to end users, while providing for educational opportunities to assure agricultural expertise in future generations.

In FY 2003, the NRI Integrated Program will support the following five program areas: (1) Functional Genomics of Agriculturally Important Organisms, (2) Air Quality, (3) Human Nutrition and Obesity, (4) Animal and Plant Biosecurity; and (5) National Training Program for Agricultural Homeland Security.

The NRI Integrated Program is distinct from other NRI programs because of its emphasis on integration of research, extension, and education and its goal of supporting relatively large projects that provide more intensive support to the research, extension, and education system. In support of the agency's goal to enhance the competitiveness of U.S. agriculture, consideration will also be given to projects (with U.S. institutions as the lead) that incorporate an international dimension with demonstrable domestic benefits.

Grants also may be awarded to ensure that faculty of small, mid-sized, and minority-serving institutions (as defined in Part VI, G.) that have not previously been successful in obtaining competitive grants under subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)) (i.e., NRI) receive a portion of the grants. Grants are to be awarded to address priorities in United States agriculture that involve research, extension, and education activities as determined by the Secretary in consultation with the National Agricultural Research, Extension, Education, and Economics Advisory Board and stakeholders.

The programs described herein were developed within the context of the authorized purposes of USDA research, extension, and education,[1] and within the framework of the CSREES Strategic Plan.[2] In addition, the NRI obtains input from Congress, the National Agricultural Research, Education, and Extension Advisory Board and a number of university, scientific, and agricultural committees and organizations.

[1] 7 U.S.C. 3101

[2] Available at http://www.reeusda.gov/part/gpra/stratpln.htm

There is no commitment by USDA to fund any particular application or to make a specific number of awards. In FY 2003, CSREES anticipates that approximately $30 million will be available to fund applications submitted in response to this RFA.

C. Eligibility

The following entities are eligible to apply for and receive a competitive grant: (1) a Federal research agency; (2) a national laboratory; (3) a college or university or a research foundation maintained by a college or university; (4) a private research organization with an established and demonstrated capacity to perform research or technology transfer; or (5) a State agricultural experiment station. Unsolicited applications will not be considered and applications from scientists at non-United States organizations will not be accepted.

Award recipients may subcontract to organizations not eligible to apply provided such organizations are necessary for the conduct of the project.

D. Request for Determination

If an applicant considers itself a minority-serving institution and wishes to be considered for a bridge grant (as described in Part II, A., 2.), but is unable to meet the enrollment criteria specified in the Definitions section of this RFA, the applicant must submit to CSREES documentation supporting the request. This documentation must be submitted as part of the requestor's application package and must be received by CSREES by the application deadline of July 30, 2003. The Secretary or designated individual will determine whether the group or groups identified are eligible under this Program.

The Request for Determination must be submitted as a separate letter to the relevant National Program Leader (identified at the beginning of this RFA). The legend at the top of the letter must read: "REQUEST FOR DETERMINATION". In addition, the following information must be provided in the order specified below:

(a) A description of each minority group that is being submitted for determination;

(b) Data or studies supporting this group's designation as a minority group; and

(c) Data indicating that enrollment of the minority group(s) exceeds fifty percent of the total enrollment at the academic institution, including graduate and undergraduate and full- and part-time students.

E. Indirect Costs

Unless otherwise indicated, CSREES is prohibited from paying indirect costs exceeding 19 percent of the total Federal funds provided under each award made on a competitive basis.[3] This limitation is equivalent to 23.456 percent of the total ***direct*** costs of an award.

F. Matching Requirements

[3] 7 U.S.C. 3310

If a grant provides a particular benefit to a specific agricultural commodity, the grant recipient is required to match the USDA funds awarded on a dollar-for-dollar basis from non-Federal sources with cash and/or in-kind contributions.

CSREES may waive the matching funds requirement for a grant if CSREES determines that: (a) the results of the project, while of particular benefit to a specific agricultural commodity, are likely to be applicable to agricultural commodities generally; or (b) the project involves a minor commodity, the project deals with scientifically important research, and the grant recipient is unable to satisfy the matching funds requirement.

G. Types of Applications and Optional Letters of Intent

1. Types of Applications

In FY 2003, only new applications may be submitted in response to this RFA. New applications are project applications that have not been previously submitted to any of the program areas in the NRI. All new applications will be reviewed competitively using the selection process and evaluation criteria described in Part IV--Review Process.

2. Optional Letters of Intent

While not required, it is requested that applicants notify CSREES of their intent to submit applications by sending letters of intent to relevant National Program Leaders (as indicated in Part II, B.) by COB on June 30, 2003. Detailed instructions on the preparation and submission of letters of intent are included in Part III, C., 2. of this RFA.

H. Restrictions on Use of Funds

Funds may not be used for the renovation or refurbishment of research spaces; the purchase or installation of fixed equipment in such spaces; or the planning, repair, rehabilitation, acquisition, or construction of buildings or facilities.

PART II--PROGRAM DESCRIPTION

A. Project Types

1. Project Grants

The following are funding estimates for FY 2003, maximum awards, and acceptable project periods for each of the program areas included in this RFA:

Program Area	Funding Estimate FY 2003	Maximum Award	Acceptable Project Period
Functional Genomics of Agriculturally Important Organisms	$8,000,000	$1,000,000	Between two (2) and four (4) years
Air Quality	$5,000,000	$500,000	Between two (2) and four (4) years
Human Nutrition and Obesity	$8,000,000	$1,000,000	Up to four (4) years
Animal Biosecurity	$4,000,000	$4,000,000	Between three (3) and four (4) years
Plant Biosecurity	$3,500,000	$1,000,000	Between three (3) and four (4) years
National Training Program for Agricultural Homeland Security	$500,000	$500,000	Between two (2) and three (3) years

Project grants may involve any combination of institutions and states. Examples may include: multiple states and/or institutions that conduct research; synthesize previous, ongoing and future research; develop curricula and build educational and research capacity; and transfer information to producers, end users, and the public. The type and number of participating institutions should be appropriate to the project proposed, and should include all participants necessary for successful completion of the projects. All project grants will be expected to address research, extension and education in a focused project area or through larger endeavors that coalesce around project areas that cannot be addressed through the funding of individual efforts. It is the intent of CSREES to promote collaboration, open communication, exchange of information and resources, and integration of activities among individuals, institutions, states or regions. Larger projects that include many institutions, states, or efforts, should minimize isolation and over-competitiveness, reduce duplication of efforts, and provide an accessible source of expert information, technology, and education upon which the public can draw. More focused projects are expected to generate new knowledge and/or apply existing knowledge quickly through outreach and the dissemination of information on specific issues in agriculture where immediate results may be visible.

Dependent on the merits of proposals received, CSREES will ensure that a portion of project grants will be awarded to proposals in which the lead institutions (recipient of the Federal funds) are small, mid-sized, and minority-serving institutions (as defined in Part VI, G.). Other institutions or organizations involved in small- and mid-sized institution eligible projects or minority-serving institution eligible projects need not meet the criteria described in the definitions for small- and mid-sized institution or minority-serving institutions.

A designated lead institution of each project will administer funds and be responsible for overall management of activities. Applicants requesting more than $1 million or proposing multifaceted participation by a number of institutions must describe how the grant will be administered and monitored, since proper management of complex projects will influence their overall success. The description should cover the duration of the project reaching beyond the project period as appropriate.

2. Bridge Grants

Bridge grants are designed to assist small, mid-sized, and minority-serving institutions that have not previously been successful in obtaining competitive grants under subsection (b) of the Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)) (i.e., NRI) in order to sustain and enhance important collaborations and activities that might lead to future program success or success in obtaining other grants. A flow chart for determining eligibility for bridge grants is included as Figure 1. at the end of this document. Institutions eligible for bridge grants will be considered for a one-time infusion of up to $100,000 if a Project Grant application is considered meritorious but ranks below the funding cutoff during the peer review process.

Applicants may not apply directly for bridge grants. Bridge grants will be awarded only to eligible small- and mid-sized institutions and minority-serving institutions (as defined in Part VI, G.) which are **not** among the most successful universities and colleges for receiving Federal funds for science and engineering research. See Table 1. at the end of this document for an alphabetical listing of the most successful institutions. Awards will be made after peer review of a project grant application places the application below the funding cutoff. Applicants applying under this category should indicate the current total enrollment of the institution in a cover letter that accompanies their proposal.

B. Program Area Descriptions

200.1 Functional Genomics of Agriculturally Important Organisms

Applicants are strongly encouraged to contact National Program Leaders with questions about the suitability of proposals. Questions regarding the functional genomics of animals should be directed to Peter Brayton (pbrayton@csrees.usda.gov; telephone: (202) 401-4399; fax: (202) 205-3641). Questions regarding the functional genomics of insects and mites should be directed to Mary Purcell-Miramontes (mpurcell@csrees.usda.gov; telephone: (202) 401-5168; fax: (202) 401-6488). Questions regarding functional genomics of microbes should be directed to Ann Lichens-Park (apark@csrees.usda.gov; telephone: (202) 401-6466; fax: (202) 401-6488). Questions regarding functional genomics of plants should be directed to Ed Kaleikau (ekaleikau@csrees.usda.gov; telephone: (202) 401-6030; fax: (202) 401-6488).

It is anticipated that approximately $8 million will be available to support proposals submitted to this program area, with approximately $2 million available for each of four (4) organismal subsections (see below). Project grants from this program area are not likely to exceed $1 million for project periods of two (2) to four (4) years.

Agricultural genomics will play a major role in addressing the challenges facing production and management options for U.S. food and fiber. These challenges include, but are not limited to: increasing crop and animal productivity; developing drought-tolerant crop varieties; enhancing nutritional content and other qualities of food and fiber; creating new food or non-food products or new uses for existing products; mitigating toxin accumulation in the environment; and controlling pests, diseases and other threats to agricultural biosecurity.

The goal of the functional genomics program area is to increase the understanding of the biological role of gene sequences in agriculturally important plants, animals, insects, and microbes, and to link these sequences to physiological functions or agricultural and food processes. As the goal of the program is to support large-scale functional analysis of genomic sequences, proposals may include gene expression profiling, proteomics, and/or metabolomics. If proposing microarray studies, applicants are strongly encouraged to include a statement addressing Minimum Information About

Microarray Experiment (MIAME) compliance (see Part III, B., 5.). For further information about MIAME, see www.mged.org.

This program area seeks to support proposals that integrate research, extension, and education or projects that are multistate, multi-institutional, or multidisciplinary. Research goals for each of the supported organismal groups are described below. Research using functional genomics to examine interactions between two (2) or more of the four (4) groups of organisms would also be appropriate. Extension activities may include, but are not limited to, collaboration with plant or animal breeders regarding the application of genomics to the development of improved agricultural products, or consultation with disease/pest diagnosticians regarding the development of improved pathogen/pest detection methods. An example of a multidisciplinary project would be a project that incorporates computational expertise, model building, and molecular biology.

It is expected that proposals will contain clear evidence of the involvement of stakeholders and/or communities of interest. Collaboration with international partners is also appropriate; however, applications must be submitted through eligible U.S. institutions. Grantees will be expected to make the results of research funded by this program area available in a publicly accessible database (e.g., GenBank).

Animals: Research in this area should focus on tissue-specific DNA microarrays for gene expression profiling as these gene products are temporally expressed in animals used for the production of food and fiber, including horse and aquaculture species. Projects are expected to evaluate the interaction between specific genetic characteristics and the environmental, social, or physiological factors that influence the phenotypic expression of characteristics important for animal production or health.

Insects and Mites: Research in this area should address gene expression analysis and function of agriculturally important insects and mites. Organisms will be restricted to crop plant and livestock pests, as well as beneficial or pollinator species. Sequencing projects will be supported only if the project's immediate goal is to ascertain the functions of genes. Model organisms will be considered for support if clear justification is given for how the information gained will be applied to agriculturally relevant species. Examples of research include: development of cDNA libraries to identify genes of pest management significance; EST-based DNA microarrays for gene discovery; gene replacement; gene tagging; gene suppression; *in vivo* functional analyses; or transposon mediated transformation.

Microbes: Research in this area should address the characterization of the molecular mechanisms responsible for microbial processes, enabled by the availability of a sequenced microbial genome or genomes. Research activities should characterize on a large scale the function of genes or networks of genes in microbe(s) having a completely, or almost completely, sequenced genome. Information (e.g.website URL) necessary to access publicly available genomic sequence data of such microbe(s) should be provided in the Project Description of the application. The microbe(s) of study must be of importance to U.S. agriculture. Projects are expected to utilize microarrays to analyze the spatial and/or temporal expression of sets of genes or to identify genes expressed under different environmental conditions or as part of particular metabolic or regulatory pathways. This sub-section **will not** support whole genome sequencing of microbes. Such studies should be submitted to the NSF/USDA Microbial Genome Sequencing Program (MGSP). For more information, the MGSP program announcement can be viewed at: www.nsf.gov/pubs/2003/nsf03526/nsf03526.pdf.

Plants: Research in this area is expected to focus on the completed sequence of the rice genome as a reference species for cereals. Recognizing the considerable rice genomics resources developed internationally, applicants are encouraged to develop proposals that build or expand collaboration with the international community on rice

functional genomics. For further information see http://www.iris.irri.org/IRFGC/. Examples of research include whole genome saturation mutagenesis, generation of insertional or activation tagged mutants for reverse genetics, whole genome expression arrays for deletion detection and gene expression profiling, proteomics, and metabolomics.

If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

210.1 Air Quality

Investigators are encouraged to contact the National Program Leader, Ray Knighton (rknighton@csrees.usda.gov; telephone: (202) 401-6417; fax: (202) 401-1706), with questions about the suitability of proposals.

It is anticipated that approximately $5 million will be available to support proposals submitted to this program area. Project grants from this program are not likely to exceed $500,000 for project periods of two (2) to four (4) years.

Agriculture, forest, and range production practices have increasingly become subject to state and federal regulations that are meant to protect air resources. In many instances, data do not exist, or are not representative of agricultural industries for the purpose of estimating emissions to the atmosphere of regulated pollutants or public nuisances such as odors and fugitive dust. The goal of this program area is to develop emission data for agriculture, forest, and range production practices and to improve understanding of odor, gases, and particulate matter measurement, production, flux, fate and transport. Specific emphasis will be placed on compounds that are regulated by state and federal agencies. Emission data for particulates, odors, and gases is needed for all aspects of production practices and naturally occurring events including:

- Animal feeding operations (especially ammonia, hydrogen sulfide and methane);
- Tillage and nutrient management (especially nitrous oxide);
- Controlled burning;
- Production, harvest and post-harvest equipment and practices; and
- Wind and wet deposition.

Applications are also solicited to improve measurement protocols/instrumentation and remote sensing to measure and characterize particulate matter and gases for within field/facility and edge-of-field/facility boundaries. Applicants should identify whether research will address fine particulate matter (< 2.5 microns in diameter) or particulate matter that is larger (up to 10 microns in diameter). Projects that determine the efficacy of techniques for monitoring and characterizing agriculturally important odors, odorants, and aerosols are also requested.

Projects on the fate and transport of emitted particulates and gases are encouraged. Topics of interest include the fate of particular nutrients or particulates that could become important air emission sources. Improved models are needed to predict movement and dispersion of air pollutants from production practices and management operations. Process-based mechanistic models using mass balance techniques of the whole enterprise are of specific interest.

Proposals to develop best management practices or methods for mitigating emissions of air pollutants are also being solicited. Projects that evaluate the efficacy of conservation practices to reduce particulate and gaseous emissions and have technology transfer and education objectives will be considered for funding.

If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

220.1 Human Nutrition and Obesity

Investigators are encouraged to contact the National Program Leaders, Etta Saltos (esaltos@csrees.usda.gov; telephone: (202) 401-5178; fax: (202) 205-3541) or Susan Welsh (swelsh@csrees.usda.gov; telephone: (202) 720-5544; fax: (202) 720-9366) with questions about the suitability of proposals.

It is anticipated that approximately $8 million will be available to support proposals submitted to this program area. Project grants from this program area are not likely to exceed $1 million for project periods up to 4 years.

A new crosscutting program area is announced to address the complex problem of obesity. This program area seeks to support proposals that integrate research, extension, and education or
projects that are multistate, multi-institutional, or multidisciplinary. Over the past decade, growing knowledge of the genetic, physiological, psychological, metabolic, and environmental influences on body weight has increased awareness of the complexities of weight management. New research has provided a basis for evaluating traditional intervention strategies and outcomes. The goal of this program is to fund innovative projects that will use a food systems approach to study critical factors that relate to obesity so that resulting knowledge can be applied to the development and evaluation of effective interventions.

Many factors that affect and/or are affected by obesity might be considered, including: (1) physical activity; (2) genetic, hormonal, biochemical and physiological factors; (3) social and psychological factors, including the development of self-esteem, self-efficacy and resiliency, family and community influences and attitudes toward food, diet and health; (4) lifestyle, cultural and ethnic factors and the influence of past dietary patterns, especially during early childhood; (5) educational factors, cognitive ability and informational resources; (6) economic factors and marketing practices, including food availability, accessibility, cost, individual income and propensity to save, and public and private assistance programs; (7) factors related to agricultural and food systems, including production, processing, marketing, preparation and consumption; and (8) factors related to public policy, community and the social environment.

Interventions may target cellular and physiological systems, individuals, groups, market segments, communities, and other components of food systems. Vulnerable population groups, including children, adolescents, ethnic minorities, and economically, educationally, or socially disadvantaged groups, are of special concern.

Applicants should bring together stakeholders and representatives of the disciplines, functions, and institutions necessary to carry out the objectives within the projected time frame. Evaluations may address newly developed or existing interventions. Research may need to address the development, modification and validation of innovative assessment tools. Support for postdoctoral or graduate student training is encouraged.

Support will not be provided for projects that focus primarily on medical therapies for disease.

If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

230.1 Animal and Plant Biosecurity

Applicants are strongly encouraged to contact the National Program Leaders with questions about the suitability of proposals. For questions regarding animal biosecurity, contact Bob Smith (rsmith@csrees.usda.gov; telephone: (202) 401-6861; fax: (202) 401-6156) or Peter Johnson (pjohnson@csrees.usda.gov; telephone: (202) 401-1896; fax: (202) 205-3641). For questions regarding plant biosecurity, contact Kitty Cardwell (kcardwell@csrees.usda.gov; telephone: (202) 401-1790; fax: (202) 401-6156) or Ed Kaleikau (ekaleikau@csrees.usda.gov; telephone: (202) 401-6030; fax: (202) 401-6488).

It is anticipated that approximately $7.5 million will be available to support proposals submitted to this program area, with approximately $4 million available for proposals dealing with animal biosecurity and $3.5 million available for proposals dealing with plant biosecurity. Animal Biosecurity project grants are not likely to exceed $4 million for project periods of three (3) to four (4) years. Plant Biosecurity project grants are not likely to exceed $1 million for project periods of three (3) to four (4) years. In an award's final year, PDs may request a supplement contingent on the demonstration of superior accomplishments, the identification of additional opportunity areas to mitigate or prevent the disease or pest losses, and the availability of program funds. Support will be highly competitive. The amount requested must be commensurate with the activities proposed.

This program area will help agricultural producers and professionals implement strategies to better safeguard American agriculture from animal and plant diseases and pest losses. It will establish investigator collaboration on animal and plant diseases and pests of high economic impact that are currently endemic in the U.S., or that are future threats due to accidental or intentional introduction through bioterrorism attacks. This approach will help assure a continued supply of safe, high-quality, affordable food and fiber for U.S. consumers and international trade partners.

It is anticipated that this program will be offered for a five-year period. Each fiscal year, proposals will be solicited that respond to specific high priority plant and animal biosecurity needs identified by stakeholders and partners. The program's purpose is not to address all threats to continued prosperity in any particular year; instead, the program will re-prioritize areas of concern each year.

Support will be provided to multidisciplinary, multi-institutional teams that bridge research, extension, and education efforts to develop practical, cost-effective strategies to minimize or mitigate animal and plant diseases. The program intends to promote collaboration, open communication, the exchange of information and the development of resources (e.g., vaccines, diagnostics, training manuals, Web sites, management recommendations). It aims to reduce duplication of efforts, and integrate activities among individuals, institutions, states, and regions. Therefore, applicants should clearly articulate how the proposal will complement and/or link with existing programs or projects.

The program's intent is to encourage maximum flexibility in preventing or mitigating disease and pest losses. Proposals will be evaluated based on how well their goals and objectives respond to current needs. It is recognized, however, that as an award's comprehensive approach unfolds, unexpected advances and promising leads, or unforeseen new national needs related to a disease or project goal, may be identified. The project team is expected to be capable of responding to these opportunities. As a result, there is an expectation that objectives may be redirected and/or new objectives may be developed (with associated budget adjustments). To encourage flexibility, the program does not expect that all investigators associated with the proposed project will be supported throughout its duration. It is suggested that

investigators involved in shorter-term, specific tasks be supported through a series of renewable subcontracts. In their original budgets, applicants may request that no more than 25% of the requested funds or $400,000, whichever is less, be available to accomplish time-critical objectives of national interest that they will determine at a later date. With the approval of the Authorized Departmental Officer, grantees may shift resources to allow additional subcontracts.

Project Directors should plan to present an annual progress report to principal stakeholders (e.g., in conjunction with national producer meetings, workshops, conferences). At the project's conclusion, the project team must present a final report to the principal stakeholders in order to assure widespread dissemination and implementation of the accomplishments (see Part VI, C. for additional reporting requirements). If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

In FY 2003, proposals may be submitted ONLY for the following program areas:

Animal Biosecurity: There are a multitude of animal diseases present in the U.S. that cost producers and consumers hundreds of millions of dollars each year. In FY 2003, this program solicits proposals that address three disease agents that respectively affect poultry, cattle, and swine: (1) Avian Influenza Virus (Fowl Plague); (2) Johne's Disease *(Mycobacterium avium* subsp. *paratuberculosis*); and (3) Porcine Reproductive Respiratory Syndrome (PRRS) Virus. Basic and applied research, in conjunction with education and outreach activities to prevent or mitigate losses from these diseases, is encouraged.

Due to the anticipated size of awards, only one or two proposals will likely be funded; therefore, not all three diseases may receive funding through this program in FY 2003. These diseases were selected based on stakeholder input, including commodity, state, and federal partners. The primary focus is to contain, minimize, or eliminate spread of these diseases from animal to animal, animal to human (if applicable), and site to site. Advances in management, biologic control, and surveillance methodologies are expected.

Each proposal should focus on one disease agent. Applicants may address more than one disease, but each disease should be addressed in a separate and complete proposal. Proposals are expected to propose coherent, complementary research, extension and education activities with the ultimate goal being a strategy or solution that can be implemented by agricultural producers and professionals to prevent or mitigate disease losses. Comprehensive approaches are expected to include coordinated work on several of the following areas: molecular and cellular biology of the pathogen; host-pathogen interactions; immunology; diagnostics; vaccine development and testing; epidemiology; management; prevention and control; and information dissemination strategies. Researchers are encouraged to utilize genome approaches as they consider the development of more sensitive and specific diagnostics and efficacious vaccines.

Multidisciplinary teams are encouraged that include research, extension and education specialists for areas such as:

- Molecular and cellular biology (e.g., gene regulation; pathogen-host interactions/pathogenesis; persistence/survival in the host and environment; evolution/variation);

- Epidemiology, prevention, control and elimination (e.g., spread/transmission dynamics; risk factors; evaluation of management strategies' impacts; economics of implementation; and identification of obstacles to adopting effective control programs, including factors effecting attitudes and behavior toward adoption of new or modified practices);

- Vaccine development, including marker vaccine technology and immunology (e.g., epitopes necessary for protective immunity; immune modulation; mucosal immune mechanisms; host cellular response);

- Diagnostics (e.g., evaluation and improvement of current protocols for sampling and detection; new methods to detect persistent infections or new isolates; and rapid genotyping or strain differentiation);

- Pathogen inactivation (e.g., biocontainment; sanitation; disinfection; quarantine); and

- Training and outreach programs for extension personnel, veterinarians, and producers.

Projects are requested that:

- Focus on development of improved diagnostics, vaccines, management approaches, and/or other tools that can be integrated into prevention/mitigation biosecurity programs;

- Include an advisory group with principal stakeholders and partners; and

- Complement and/or link with already existing programs or projects.

Plant Biosecurity: The objective of this subsection is to conduct basic and applied research, in conjunction with education and outreach activities, for high-risk pathogens/pests of regional or national importance, to develop:

- Early detection, diagnosis and monitoring tools with strategies for mitigation, control, and elimination of introduced high-risk organisms; and

- Rapid response plans that include the ability to predict the spread of high-risk organisms.

Proposals should be developed for research, extension and education projects that will further the objectives of enhancing agricultural plant security on a national basis.

Hypothesis-driven projects are sought which address one or more of the following three needs:

- Early detection and monitoring tools are needed to detect pathogens/pests before they are symptomatic, spread, and become established. Hypothesis-driven research focused on the utilization of novel genomic sequences for laboratory and field-applied methods of rapid and reliable diagnostic assays is a priority of the program. Assays are particularly sought for specific strain identification and virulence prediction across a broad class or group of pathogens and pests. The development, testing, and application of multiplexed polymerase chain reaction and diagnostic micro-arrays are encouraged. Applicants may utilize other tools, including the application of innovative concepts from areas such as remote sensing and nanotechnology. Research on forecasting and monitoring strategies for early detection may also be proposed;

- With a focus on high-impact pathogens/pests, priority areas include: the development, validation, and statistical comparative analysis of various risk-assessment procedures as they relate to variations in host-plant resistance and environmental conditions; disease/pest spread and environmental persistence, including the development and testing of predictive models that can be applied under different environmental and

management conditions for more than one class of organism and host plant. If a model system is proposed, it should have potential for wider application to other pathogen/pest/host systems; and

- The development of statistically valid, critical assessments of robust field-based pathogen identification, reporting, and confirmation systems that can be applied to various pathogens/pests and crops are a priority.

Additionally, projects are requested that:

- Focus on development of improved diagnostics, management approaches, and/or other tools that can be integrated into prevention/mitigation/recovery biosecurity programs that are likely to be ready for deployment in the short term and include implementation plans;

- Focus on vulnerable cropping systems, large area or high economic consequence crops, and high risk pathogens and/or provide model systems for further application;

230.2 National Training Program for Agricultural Homeland Security

Applicants are strongly encouraged to contact the National Program Leaders, Kitty Cardwell (kcardwell@csrees.usda.gov; telephone: (202) 401-1790; fax: (202) 401-6156) or Bob Smith (rsmith@csrees.usda.gov; telephone: (202) 401-6861; fax: (202) 401-6156) with questions about the suitability of proposals.

It is anticipated that approximately $500,000 will be available to support proposals submitted to this program. It is expected that between one (1) and five (5) awards will be made for project periods of two (2) to three (3) years.

America's approximately one billion acres of forest, crop and range lands may be subject to bioterrorist attack using plant pathogens and pests. The best defense, failing exclusion at the border, will be surveillance, early detection and rapid response to reduce spread and damage. Enhanced national agricultural security from bioterrorist attack on agricultural and natural ecosystems in the U.S. requires: (1) a cadre of educated/capable first detectors, able to detect unusual events and take appropriate action; and (2) an understanding of the situation, positive support and willing participation by producers and other private sector stakeholders to fulfill the need for additional monitoring, reporting, and response operating procedures.

Applications are requested for the development of training materials and curricula, and the implementation of training programs for public and private crop consultants, extension personnel, technical assistance personnel and other first detectors. Materials and curricula must be developed in cooperation with the USDA Animal and Plant Health Inspection Service (APHIS) and the USDA-funded plant disease diagnostic network. The educational materials and curricula for first detectors should include:

- Sample collection and submission procedures and communication protocols;

- Resources to identify specific pests and pathogens of regulatory consequence;

- Methods for determining when a new or unusual event may be taking place, including knowledge of what is normal and "background";

- What to look for, including what is normal and what is not;

- Procedures for reporting including to whom reports should be made;
- Ways the regulatory response might work;
- Reasons the remediation process is needed and ways it will help defend the homeland and stabilize the industry; and
- The role every producer plays in the national defense system.

Projects are requested that:

- Focus on vulnerable cropping systems, large area or high economic consequence crops, and high risk pathogens; and
- Demonstrate applicable outcomes, likely to be ready for deployment in the very short term, and include plans for deployment.

If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

PART III--PREPARATION OF AN APPLICATION

A. Program Application Materials

Program application materials are available at the CSREES Funding Opportunities Web site (http://www.reeusda.gov/1700/funding/ourfund.htm). The CSREES application forms are also accessible through the NRI home page (http://www.reeusda.gov/nri). If you do not have access to the web page or have trouble downloading material and you would like a hard copy, you may contact the Proposal Services Unit, Competitive Programs, USDA/CSREES at (202) 401-5048. When calling the Proposal Services Unit, please indicate that you are requesting the RFA and associated application forms for the NRI Integrated Program. These materials also may be requested via Internet by sending a message with your name, mailing address (not e-mail) and phone number to psb@reeusda.gov. State that you want a copy of the RFA and the associated application forms for the NRI Integrated Program.

B. Content of Applications

The applications should be prepared following the guidelines and the instructions below. Each application must contain the following elements in the order indicated:

1. General

Use the following guidelines to prepare an application. Proper preparation of applications will assist reviewers in evaluating the merits of each application in a systematic, consistent fashion:

(a) Prepare the application on only one side of the page using standard size (8 1/2" x 11") white paper, one-inch margins, typed or word processed using no type smaller than 12 point font, and single or double spaced. Use an easily readable font face (e.g., Geneva, Helvetica, Times Roman).

(b) Number each page of the application sequentially, starting with the Project Description, including the budget pages, required forms, and any appendices.

(c) Staple the application in the upper left-hand corner. Do not bind. An original and fourteen (14) copies of the application must be submitted in one package, along with two (2) additional copies of the Project Summary, Form CSREES-2003, as a separate attachment. Prior to mailing, compare the application with the checklist found at the end of this document to ensure the application is complete.

(d) Include original illustrations (photographs, color prints, etc.) in all copies of the application to prevent loss of meaning through poor quality reproduction.

(e) The contents of the application should be assembled in the following order:

(1) Proposal Cover Page (Form CSREES-2002)
(2) Table of Contents
(3) Project Summary (Form CSREES-2003)
(4) Project Description (see instructions for page limitations)
(5) References to Project Description
(6) Facilities and Equipment
(7) Appendices to Project Description

(8) Key Personnel (vitae and publications list)
(9) Collaborative Arrangements (including letters of support)
(10) Conflict-of-Interest List (Form CSREES-2007)
(11) Budget (Form CSREES-2004)
(12) Budget Narrative
(13) Matching (if required)
(14) Current and Pending Support (Form CSREES-2005)
(15) Assurance Statement(s) (Form CSREES-2008)
(16) Compliance with the National Environmental Policy Act (NEPA) (Form CSREES-2006)

2. Proposal Cover Page (Form CSREES-2002)

Page A

Each copy of each grant application must contain a Proposal Cover Page, Form CSREES-2002. One copy of the application, preferably the original, must contain the pen-and-ink signature(s) of the proposing PDs and the authorized organizational representative (AOR), the individual who possesses the necessary authority to commit the organization's time and other relevant resources to the project. If there are more than three co-PDs for an application, please list additional co-PDs on a separate sheet of paper (with appropriate information and signatures) and attach to the Proposal Cover Page (Form CSREES-2002). Any proposed PD or co-PD whose signature does not appear on Form CSREES-2002 or attached additional sheets will not be listed on any resulting grant award. Complete both signature blocks located at the bottom of the Proposal Cover Page form. Please note that Form CSREES-2002 is comprised of two parts - Page A, which is the Proposal Cover Page, and Page B, which is the Personal Data on Project Director.

Form CSREES-2002 serves as a source document for the CSREES grant database; it is therefore important that it be accurately completed in its entirety, especially the e-mail addresses requested in Blocks 4.c. and 18.c. However, the following items are highlighted as having a high potential for errors or misinterpretations:

(a) Type of Performing Organization (Block 6.a. and 6.b.). For Block 6.a., a check should be placed in the appropriate box to identify the type of organization which is the legal recipient named in Block 1. Only one box should be checked. For Block 6.b., please check as many boxes that apply to the affiliation of the PD listed in Block 16.

(b) Title of Proposed Project (Block 7.). The title of the project must be brief (140-character maximum, including spaces), yet represent the major thrust of the effort being proposed. Project titles are read by a variety of nonscientific people; therefore, highly technical words or phraseology should be avoided where possible. In addition, introductory phrases such as “investigation of,” “research on,” “education for,” or “outreach that” should not be used.

(c) Program to Which You Are Applying (Block 8.). Enter “NRI Integrated”. The program area (i.e., name of the program component) and number (e.g., 230.1 Animal and Plant Biosecurity) should also be inserted in Block 8.

(d) Type of Request (Block 14.). Check the block for “New”.

(e) Project Director (PD) (Blocks 16.-19.). Blocks 16.-18. are used to identify the PD and Block 19. to identify co-PDs. If needed, additional co-PDs may be listed on a separate sheet of paper and attached to Form

CSREES-2002, the Proposal Cover Page, with the applicable co-PD information and signatures. Listing multiple co-PDs, beyond those required for genuine collaboration, is discouraged.

(f) Other Possible Sponsors (Block 21.). List the names or acronyms of all other public or private sponsors including other agencies within USDA to which your application has been or might be sent. In the event you decide to send your application to another organization or agency at a later date, you must inform the identified CSREES program contact as soon as practicable. Submitting your application to other potential sponsors will not prejudice its review by CSREES; however, submitting the same (i.e., duplicate) application to another CSREES program is not permissible.

Page B

Page B should be submitted only with the original signature copy of the application and should be placed as the last page of the original copy of the application. This page contains personal data on the PD(s). CSREES requests this information in order to monitor the operation of its review and awards processes. This page will not be duplicated or used during the review process. Please note that failure to submit this information will in no way affect consideration of your application.

3. Table of Contents

For consistency and ease in locating information, each application must contain a detailed Table of Contents immediately following the proposal cover page. The Table of Contents should contain page numbers for each component of the application. Page numbering should begin with the first page of the Project Description. A Table of Contents page is included at the end of this RFA for your convenience. It should be used in the preparation of an application.

4. Project Summary (Form CSREES-2003)

The application must contain a Project Summary, Form CSREES-2003. The summary should be approximately 250 words, contained within the box, placed immediately after the Table of Contents, and not numbered. The names and affiliated organizations of all PDs and co-PDs should be listed on this form, in addition to the title of the project. The summary should be a self-contained, specific description of the activity to be undertaken and should focus on: overall project goal(s) and supporting objectives; plans to accomplish project goal(s); and relevance of the project to the purpose of the NRI Integrated Program. The importance of a concise, informative Project Summary cannot be overemphasized. If there are more than three co-PDs for an application, please list additional co-PDs on a separate sheet of paper (with appropriate information) and attach to the Project Summary (Form CSREES-2003). (Please check the "Standard Research Proposal" box on the upper right-hand portion of the form under "Proposal Type".)

5. Project Description

PLEASE NOTE: The Project Description section may not exceed a total of 18 single- or double-spaced pages including figures and tables. This page limitation applies regardless of whether figures or tables are included. All pages, including those with figures and tables, should be numbered sequentially. Applications exceeding this page limitation may be returned without review. This maximum (18 pages) has been established to ensure fair and equitable competition. The Project Description must include all of the following:

(a) Introduction. A clear statement of the long-term goal(s) and supporting objectives of the proposed project should be included. Summarize the body of knowledge or other past activities which substantiate the need for the proposed project. Describe ongoing or recently completed significant activities related to the proposed

project including the work of key project personnel. The current status of research in this field of science should also be described. Preliminary data/information pertinent to the proposed project should be included in this section. All works cited should be referenced (see 6., References to Project Description, below).

For Functional Genomics applicants proposing microbial research only, information necessary to access publicly available genomic sequence data of such microbe(s) (e.g., Web site URL) should be provided in the Introduction.

(b) Relevance and Significance. The specific relationship of the project's objectives to the potential long-range improvement in and sustainability of U.S. agriculture or to one or more of the particular program areas should be clearly stated. Include a description of the significance of the activity and its value in improving agriculture through research, education, and extension. Any novel ideas or contributions that the proposed project offers should also be discussed in this section.

(c) Approach. The activities proposed or problems being addressed must be clearly stated and the approaches being applied clearly described. The following should be included:

(1) A description of the activities proposed and the sequence in which the activities are to be performed;

(2) Methods to be used in carrying out the proposed project, including the feasibility of the methods;

(3) Expected outcomes;

(4) Means by which results will be analyzed, assessed, or interpreted;

(5) How results or products will be used;

(6) Pitfalls that may be encountered;

(7) Limitations to proposed procedures; and

(8) A full explanation of any materials, procedures, situations, or activities related to the project that may be hazardous to personnel, along with an outline of precautions to be exercised to avoid or mitigate the effects of such hazards.

If proposing microarray studies, applicants are strongly encouraged to include a statement addressing Minimum Information About Microarray Experiment (MIAME) compliance.

(d) Time Table. Provide an expected timeline for completing the project in the requested project period.

(e) Evaluation and Monitoring of Project. Provide a plan for assessing and evaluating the accomplishments of the stated objectives in the application during the project. Describe ways to determine the effectiveness of the end results during and upon termination of the project. If the project is complex and requires administrative oversight and extensive management, include plans for evaluating and monitoring the administration of the project, as well. This description should include how funds and resources will be allocated so that collaborative participation of all parties is ensured throughout the duration of the project.

(f) Management Plan. (Not included in Project Description page limitation) Explain how the project will be managed to ensure efficient administration of the grant and how activities will be integrated most effectively. Management of the project will be judged on the adequacy of: overall management of the project, including budget and collaboration with co-PDs; plans for reporting, assessing, and interpreting the results; and coordination of dissemination of the information over the duration of the project.

For Functional Genomics of Agriculturally Important Organisms applications only, include a plan of how results, tools, and resources developed will be made publicly available and how access by the scientific community will be maintained.

For Animal and Plant Biosecurity applications only, outline how the project team will establish an advisory group of experts and stakeholders to guide them and provide annual assessments of progress and outcomes.

6. References to Project Description

All references to works cited should be complete, including titles and all co-authors, and should conform to an acceptable journal format. References are not considered in the page limitation for the Project Description.

7. Facilities and Equipment

Facilities and major items of equipment that are available for use or assignment to the proposed project during the requested period of support should be described. In addition, items of nonexpendable equipment necessary to conduct and successfully conclude the proposed project should be listed (including dollar amounts), and, if funds are requested for their acquisition, justified on a separate page and attached to the budget.

8. Appendices to Project Description

Each project description is expected to be complete, however, additions to the Project Description (appendices) are allowed if they are directly germane to the proposed project and are strictly limited to a maximum of two (2) of the following:

(a) Reprints (papers that have been published in peer-reviewed journals); and

(b) Preprints (manuscripts in press for a peer-reviewed journal must be accompanied by letters of acceptance from the publishing journals).

Manuscripts sent in support of the application should be single-spaced and printed on both sides of the page. Each manuscript must be identified with the name of the submitting organization, the name(s) of the PD(s), and the title of the application, and be securely attached to each copy of the application.

Staff of the NRI will not collate applications or application addenda. Information may not be appended to an application to circumvent page limitations prescribed for the project description. Extraneous materials will not be used during the peer review process.

9. Key Personnel

The following should be included, as applicable:

(a) The roles and responsibilities of each PD and/or collaborator should be clearly described; and

(b) The vitae of the PD and each co-PD, senior associate, and other professional personnel. This section should include vitae of all key persons who are expected to work on the project, whether or not CSREES funds are sought for their support. The vitae should be limited to two (2) pages each in length, excluding publications listings. The vitae should include a presentation of academic and research credentials, as applicable, e.g., earned degrees, teaching experience, employment history, professional activities, honors and awards, and grants received. A chronological list of all publications in refereed journals during the past four (4) years, including those in press, must be provided for each project member for whom a curriculum vita is provided. Also list only those non-refereed technical publications that have relevance to the proposed project. All authors should be listed in the same order as they appear on each paper cited, along with the title and complete reference as these usually appear in journals.

10. Collaborative Arrangements

If it will be necessary to enter into formal consulting or collaborative arrangements with others, such arrangements should be fully explained and justified. If the consultant(s) or collaborator(s) are known at the time of application, vitae or resume should be provided. In addition, evidence (e.g., letters of support) should be provided that the collaborators involved have agreed to render these services. The applicant also will be required to provide additional information on consultants and collaborators in the budget portion of the application. See instructions in the application forms for completing Form CSREES-2004, Budget.

11. Conflict-of-Interest List (Form CSREES-2007)

A Conflict-of-Interest List, Form CSREES-2007, must be provided for all individuals who have submitted a vitae in response to item 9.(b) of this part. Each Form CSREES-2007 must list alphabetically, by the last names, the full names of the individuals in the following categories: (a) all co-authors on publications within the past four years, including pending publications and submissions; (b) all collaborators on projects within the past four years, including current and planned collaborations; (c) all thesis or postdoctoral advisees/advisors; and (d) all persons in your field with whom you have had a consulting or financial arrangement within the past four years, who stand to gain by seeing the project funded. This form is necessary to assist program staff in excluding from application review those individuals who have conflicts of interest with the personnel in the grant application. The program contact must be informed of any additional conflicts of interest that arise after the application is submitted.

12. Budget

(a) Budget Form (Form CSREES-2004)

Prepare the Budget, Form CSREES-2004, in accordance with instructions provided with the application forms. A budget form is required for each year of requested support. In addition, a cumulative budget is required detailing the requested total support for the overall project period. If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses for at least one project team member to attend annual meetings beginning in the second year of funding may be included in the requested budget. The budget form may be reproduced as

needed by applicants. Funds may be requested under any of the categories listed on the form, provided that the item or service for which support is requested is allowable under the authorizing legislation, the applicable statutes, regulations, and Federal cost principles, and these program guidelines, and can be justified as necessary for the successful conduct of the proposed project. Applicants also must include a budget narrative to justify their budget requests (see section (b) below). See Part I, E. for indirect cost information.

> **For Animal and Plant Biosecurity applications only,** applicants may request that no more than 25% of the requested funds or $400,000, whichever is less, be available to accomplish time-critical objectives of national interest that they will determine at a later date.

(b) Budget Narrative

All budget categories, with the exception of Indirect Costs, for which support is requested, must be individually listed (with costs) in the same order as the budget and justified on a separate sheet of paper and placed immediately behind the Budget form.

(c) Matching

If an applicant concludes that matching funds are not required (as specified under Part I, F.), a justification should be included in the Budget Narrative. CSREES will consider this justification when ascertaining final matching requirements or determining if required matching can be waived. CSREES retains the right to make final determinations regarding matching requirements.

For those grants where matching funds are required as specified under Part I. F., applications should include written verification of commitments of matching support (including both cash and in-kind contributions) from third parties. Written verification means:

For any third party cash contributions, a separate pledge agreement for each donation, signed by the authorized organizational representative of the donor organization and the applicant organization, which must include: (1) The name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) the dollar amount of the cash donation; and (5) a statement that the donor will pay the cash contribution during the grant period.

For any third party in-kind contributions, a separate pledge agreement for each contribution, signed by the authorized organizational representatives of the donor organization and the applicant organization, which must include: (1) The name, address, and telephone number of the donor; (2) the name of the applicant organization; (3) the title of the project for which the donation is made; (4) a good faith estimate of the current fair market value of the third party in-kind contribution; and (5) a statement that the donor will make the contribution during the grant period.

The sources and the amount of all matching support from outside the applicant organization should be summarized on a separate page and placed in the application immediately following the Budget Narrative. All pledge agreements must be placed in the application immediately following the summary of matching support.

The value of applicant contributions to the project shall be established in accordance with the applicable cost principles. Applicants should refer to OMB Circulars A-21, Cost Principles for Educational Institutions, A-87, Cost Principles for State, Local, and Tribal Governments, A-122, Cost Principles for Non-Profit Organizations

and For-Profit Organizations, and the cost principles in the Federal Acquisition Regulation at 48 CFR 31.2 (see 7 CFR 3015.194) for further guidance and other requirements relating to matching and allowable costs.

13. Current and Pending Support (Form CSREES-2005)

All applications must contain Form CSREES-2005 listing other current public or private support (including in-house support) to which personnel (i.e., individuals submitting a vitae in response to item 9.(b) of this part) identified in the application have committed portions of their time, whether or not salary support for person(s) involved is included in the budget. Please follow the instructions provided on this form. Concurrent submission of identical or similar applications to the possible sponsors will not prejudice application review or evaluation by the CSREES. However, an application that duplicates or overlaps substantially with an application already reviewed and funded (or to be funded) by another organization or agency will not be funded under this program. Please note that the project being proposed should be included in the pending section of the form.

14. Assurance Statement(s) (Form CSREES-2008)

A number of situations encountered in the conduct of projects require special assurances, supporting documentation, etc., before funding can be approved for the project. In addition to any other situation that may exist with regard to a particular project, applications involving any of the following elements must comply with the additional requirements as applicable.

(a) Recombinant DNA or RNA Research

As stated in 7 CFR Part 3015.205 (b)(3), all key personnel identified in the application and all endorsing officials of the proposing organization are required to comply with the guidelines established by the National Institutes of Health entitled, "Guidelines for Research Involving Recombinant DNA Molecules," as revised. If your project proposes to use recombinant DNA or RNA techniques, you must so indicate by checking the "yes" box in Block 20. of Form CSREES-2002 (the Proposal Cover Page) and by completing Section A of Form CSREES-2008. For applicable applications recommended for funding, Institutional Biosafety Committee approval is required before CSREES funds will be released. Please refer to the application forms for further instructions.

(b) Animal Care

Responsibility for the humane care and treatment of live vertebrate animals used in any grant project supported with funds provided by CSREES rests with the performing organization. Where a project involves the use of living vertebrate animals for experimental purposes, all key personnel identified in an application and all endorsing officials of the proposing organization are required to comply with the applicable provisions of the Animal Welfare Act of 1966, as amended (7 U.S.C. 2131 et seq.), and the regulations promulgated thereunder by the Secretary in 9 CFR Parts 1, 2, 3, and 4 pertaining to the care, handling, and treatment of these animals. If your project will involve these animals, you should check "yes" in Block 20. of Form CSREES-2002 and complete Section B of Form CSREES-2008. In the event a project involving the use of live vertebrate animals results in a grant award, funds will be released only after the Institutional Animal Care and Use Committee has approved the project. Please refer to the application forms for further instructions.

(c) Protection of Human Subjects

Responsibility for safeguarding the rights and welfare of human subjects used in any grant project supported with funds provided by CSREES rests with the performing organization. Guidance on this issue is contained in the National Research Act, Pub. L. No. 93-348, as amended, and implementing regulations promulgated by the Department under 7 CFR Part 1c. If you propose to use human subjects in your project, you should check the "yes" box in Block 20. of Form CSREES-2002 and complete Section C of Form CSREES-2008. In the event a project involving human subjects at risk is recommended for award, funds will be released only after the Institutional Review Board (IRB) has approved the research plan and CSREES has accepted documentation of the IRB approval. Please refer to the application forms for additional instructions.

15. Certifications

Note that by signing Form CSREES-2002 the applicant is providing the certifications required by 7 CFR Part 3017, regarding Debarment and Suspension and Drug-Free Workplace, and 7 CFR Part 3018, regarding Lobbying. The certification forms are included in the application package for informational purposes only. These forms should not be submitted with the application since by signing Form CSREES-2002 your organization is providing the required certifications. If the project will involve a subcontractor or consultant, the subcontractor/consultant should submit a Form AD-1048, Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions, to the grantee organization for retention in their records. This form should not be submitted to USDA.

16. Compliance with the National Environmental Policy Act (NEPA) (Form CSREES-2006)

As outlined in 7 CFR Part 3407 (the CSREES regulations implementing NEPA), the environmental data for any proposed project is to be provided to CSREES so that CSREES may determine whether any further action is needed. In some cases, however, the preparation of environmental data may not be required. Certain categories of actions are excluded from the requirements of NEPA.

In order for CSREES to determine whether any further action is needed with respect to NEPA, pertinent information regarding the possible environmental impacts of a particular project is necessary; therefore, Form CSREES-2006, "NEPA Exclusions Form," must be included in the application indicating whether the applicant is of the opinion that the project falls within a categorical exclusion and the reasons therefore. If it is the applicant's opinion that the proposed project falls within the categorical exclusions, the specific exclusion(s) must be identified.

Even though a project may fall within the categorical exclusions, CSREES may determine that an Environmental Assessment or an Environmental Impact Statement is necessary for an activity, if substantial controversy on environmental grounds exists or if other extraordinary conditions or circumstances are present which may cause such activity to have a significant environmental effect.

C. Submission of Applications

1. When to Submit (Deadline Date)

An optional letter of intent to apply, if submitted, must be received by June 30, 2003. Applications must be received by COB on July 30, 2003 (5:00 P.M., Eastern Time). Applications received after this deadline will not be considered for funding.

2. What to Submit

(a) Optional Letter of Intent to Apply

To facilitate proposal review panel selection, submit a letter of intent to apply to the relevant National Program Leader (as indicated in Part II, B.) by COB on June 30, 2003. The letter of intent should indicate the program area in which the application is being submitted. In addition, the letter should contain: (1) a descriptive title of the proposed project; (2) names and roles of the PD(s) and other key personnel, along with their institutions; and (3) a brief statement of approaches and objectives (500 words or less). CSREES will not provide applicants with feedback regarding the content of these letters. Failure to submit a letter of intent will not preclude consideration of an application.

(b) Applications

An original and fourteen (14) copies of the application must be submitted. In addition, submit two (2) copies of the application's Project Summary, Form CSREES-2003. All copies of the application must be submitted in one package.

3. Multiple Submissions

Duplicate, essentially duplicate, or predominantly overlapping applications submitted to one or more program areas within the NRI in any one fiscal year will be returned without review. In addition, applicants may not submit to the NRI an application that is considered duplicate, essentially duplicate, or predominantly overlapping with an application submitted to another CSREES program in the same fiscal year.

4. Where to Submit

Optional letters of intent may be submitted via facsimile or e-mail to the relevant National Program Leaders (whose contact information appears in Part II, B.). Applications submitted via facsimile or e-mail will not be accepted.

Applicants are strongly encouraged to submit completed applications via overnight mail or delivery service to ensure timely receipt by the USDA. The address for hand-delivered applications or applications submitted using an express mail or overnight courier service is:

NRI Integrated Program
c/o Proposal Services Unit
Cooperative State Research, Education, and Extension Service
U.S. Department of Agriculture
Room 1420, Waterfront Centre
800 9th Street, S.W.
Washington, D.C. 20024

Telephone: (202) 401-5048

Applications sent via the U.S. Postal Service must be sent to the following address:

NRI Integrated Program

c/o Proposal Services Unit
Cooperative State Research, Education, and Extension Service
U.S. Department of Agriculture
STOP 2245
1400 Independence Avenue, S.W.
Washington, D.C. 20250-2245

D. Acknowledgment of Applications

The receipt of all applications will be acknowledged by e-mail. Therefore, applicants are strongly encouraged to provide accurate e-mail addresses, where designated, on the Form CSREES-2002. If the applicant's e-mail address is not indicated, CSREES will acknowledge receipt of the application by letter.

If the applicant does not receive an acknowledgment within 60 days of the submission deadline, please contact the program contact. Once the application has been assigned a proposal number, please cite that number on all future correspondence.

PART IV--REVIEW PROCESS

A. General

Each application will be evaluated in a two-part process. First, each application will be screened to ensure that it meets the administrative requirements as set forth in this RFA. Applications that do not fall within the guidelines as stated in the RFA will be eliminated from program competition and returned to applicants. Second, a review panel will technically evaluate applications that meet these requirements. Written comments will be solicited from *ad hoc* reviewers when required, and individual written comments and in-depth discussions will be provided by a peer review panel prior to recommending applications for funding.

Reviewers will be selected based upon their training and experience in relevant scientific, extension, or education fields, taking into account the following factors: (a) the level of relevant formal scientific, technical education, or extension experience of the individual, as well as the extent to which an individual is engaged in relevant research, education, or extension activities; (b) the need to include as reviewers experts from various areas of specialization within relevant scientific, education, or extension fields; (c) the need to include as reviewers other experts (e.g., producers, range or forest managers/operators, and consumers) who can assess relevance of the applications to targeted audiences and to program needs; (d) the need to include as reviewers experts from a variety of organizational types (e.g., colleges, universities, industry, state and Federal agencies, private profit and non-profit organizations) and geographic locations; (e) the need to maintain a balanced composition of reviewers with regard to minority and female representation and an equitable age distribution; and (f) the need to include reviewers who can judge the effective usefulness to producers and the general public of each application.

B. Evaluation Criteria

Priority will be given to: (1) projects that are multistate, multi-institutional, or multidisciplinary; or (2) projects that integrate agricultural research, extension, and education.

The following evaluation criteria will be used in reviewing all applications submitted in response to this RFA:

1. Relevance

All proposals will be judged as to their relevance to critical emerging agricultural and rural issues. Further factors include:

(a) Documentation that the research, extension and education activities are directed toward current or likely future problems or problems identified in this document;

(b) Evident linkage of research, extension and education functions; and

(c) Evidence of involvement of stakeholders and/or communities of interest.

2. Merit

All proposals will be judged on their scientific, extension, or education merit, including:

(a) Novelty, innovation, uniqueness, and originality;

(b) Conceptual adequacy of the research, extension and education components;

(c) Clarity and delineation of objectives;

(d) Adequacy of the description of the undertaking, suitability and feasibility of methodology;

(e) Demonstration of feasibility; and

(f) Probability of success of the project.

3. Quality

All proposals will be judged on their quality, including:

(a) Selection of most appropriate and qualified individuals to address the problem;

(b) Training and demonstrated awareness of previous and alternative approaches to the problem identified in the proposal, and performance record or potential for future accomplishments;

(c) Time allocated for systematic attainment of objectives;

(d) Institutional capacity in subject area;

(e) Adequacy of available or obtainable support personnel, facilities, and instrumentation;

(f) Adequacy of plans for reporting, assessing and monitoring results of the project over its duration; and

(g) Planned administration of the project and its maintenance, partnerships, collaborative efforts, evaluation and monitoring efforts, and the planned dissemination of information over the duration of the project.

In addition to the evaluation criteria above, applications considered for bridge grant support will also be judged based on the potential that further funding will sustain and enhance important collaborations and activities that might lead to future program success or success in obtaining other grants.

C. Conflicts of Interest and Confidentiality

During the peer evaluation process, extreme care will be taken to prevent any actual or perceived conflicts of interest that may impact review or evaluation. For the purpose of determining conflicts of interest, the academic and administrative autonomy of an institution shall be determined by reference to the current version of the Higher Education Directory, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042. Phone: (703) 532-2300. Web site: http://www.hepinc.com.

Names of submitting institutions and individuals, as well as application content and peer evaluations, will be kept confidential, except to those involved in the review process, to the extent permitted by law. In addition, the identities of

peer reviewers will remain confidential throughout the entire review process. Therefore, the names of the reviewers will not be released to applicants. At the end of the fiscal year, names of panelists will be made available in such a way that the panelists cannot be identified with the review of any particular application.

Part V--AWARD ADMINISTRATION

A. General

Within the limit of funds available for such purpose, the awarding official of CSREES shall make grants to those responsible, eligible applicants whose applications are judged most meritorious under the procedures set forth in this RFA. It should be noted that the project need not be initiated on the grant effective date, but as soon thereafter as practical so that project goals may be attained within the funded project period. All funds granted by CSREES under this RFA shall be expended solely for the purpose for which the funds are granted in accordance with the approved application and budget, the regulations, the terms and conditions of the award, the applicable Federal cost principles, and the Department's assistance regulations (parts 3015 and 3019 of 7 CFR). The total period for which a grant is awarded (including all funded and no-cost time extensions) may not exceed five years.

B. Organizational Management Information

Specific management information relating to an applicant shall be submitted on a one-time basis as part of the responsibility determination prior to the award of a grant identified under this RFA, if such information has not been provided previously under this or another CSREES program. CSREES will provide copies of forms recommended for use in fulfilling these requirements as part of the preaward process. Although an applicant may be eligible based on its status as one of these entities, there are factors that may exclude an applicant from receiving Federal financial and nonfinancial assistance and benefits under this program (e.g., debarment or suspension of an individual involved or a determination that an applicant is not responsible based on submitted organizational management information).

C. Award Document and Notice of Award

The award document will provide pertinent instructions and information including, at a minimum, the following:

1. Legal name and address of performing organization or institution to whom the Administrator has issued an award under the terms of this request for applications;

2. Title of project;

3. Name(s) and institution(s) of PDs chosen to direct and control approved activities;

4. Identifying award number assigned by the Department;

5. Project period, specifying the amount of time the Department intends to support the project without requiring recompetition for funds;

6. Total amount of Departmental financial assistance approved by the Administrator during the project period;

7. Legal authority(ies) under which the grant is awarded;

8. Appropriate Catalog of Federal Domestic Assistance (CFDA) number;

9. Approved budget plan for categorizing allocable project funds to accomplish the stated purpose of the award; and

10. Other information or provisions deemed necessary by CSREES to carry out its respective awarding activities or to accomplish the purpose of a particular award.

Part VI--ADDITIONAL INFORMATION

A. Access to Review Information

Copies of reviews, not including the identity of reviewers, and a summary of the panel comments will be sent to the applicant PD after the review process has been completed.

B. Use of Funds; Changes

1. Delegation of Fiscal Responsibility

Unless the terms and conditions of the grant state otherwise, the grantee may not in whole or in part delegate or transfer to another person, institution, or organization the responsibility for use or expenditure of grant funds.

2. Changes in Project Plans

(a) The permissible changes by the awardee, PD(s), or other key project personnel in the approved project grant shall be limited to changes in methodology, techniques, or other similar aspects of the project to expedite achievement of the project's approved goals. If the grantee or the PD(s) is uncertain as to whether a change complies with this provision, the question must be referred to the Authorized Departmental Officer (ADO) for a final determination. The ADO is the signatory of the award document, not the program contact.

(b) Changes in approved goals or objectives shall be requested by the grantee and approved in writing by the ADO prior to effecting such changes. In no event shall requests for such changes be approved which are outside the scope of the original approved project.

(c) Changes in approved project leadership or the replacement or reassignment of other key project personnel shall be requested by the grantee and approved in writing by the ADO prior to effecting such changes.

(d) Transfers of actual performance of the substantive programmatic work in whole or in part and provisions for payment of funds, whether or not Federal funds are involved, shall be requested by the grantee and approved in writing by the ADO prior to effecting such transfers, unless prescribed otherwise in the terms and conditions of the grant.

(e) Changes in Project Period: The project period may be extended by CSREES without additional financial support, for such additional period(s) as the ADO determines may be necessary to complete or fulfill the purposes of an approved project, but in no case shall the total project period exceed five years. Any extension of time shall be conditioned upon prior request by the grantee and approval in writing by the ADO, unless prescribed otherwise in the terms and conditions of award.

(f) Changes in Approved Budget: Changes in an approved budget must be requested by the grantee and approved in writing by the ADO prior to instituting such changes if the revision will involve transfers or expenditures of amounts requiring prior approval as set forth in the applicable Federal cost principles, Departmental regulations, or award.

C. Expected Program Outputs and Reporting Requirements

Grantees are required to submit annual and summary evaluation reports via CSREES' Current Research Information System (CRIS). CRIS is an electronic, Web-based inventory system that facilitates both grantee submissions of project outcomes and public access to information on Federally-funded projects.

If a project is funded, beginning in the second year of funding, at least one member of each project team will be required to attend annual investigator meetings. Reasonable travel expenses may be claimed as part of the project budget (see Part III, B., 12.).

For Animal and Plant Biosecurity projects only, PDs should plan to present an annual progress report to principal stakeholders (e.g., in conjunction with national producer meetings, workshops, conferences). At the project's conclusion, the project team must present a final report to the principal stakeholders in order to assure widespread dissemination and implementation of the accomplishments.

D. Applicable Federal Statutes and Regulations

Several Federal statutes and regulations apply to grant applications considered for review and to project grants awarded under this program. These include, but are not limited to:

7 CFR Part 1, subpart A--USDA implementation of the Freedom of Information Act.

7 CFR Part 3--USDA implementation of OMB Circular No. A-129 regarding debt collection.

7 CFR Part 15, subpart A--USDA implementation of Title VI of the Civil Rights Act of 1964, as amended.

7 CFR Part 3015--USDA Uniform Federal Assistance Regulations, implementing OMB directives (i.e., OMB Circular Nos. A-21 and A-122) and incorporating provisions of 31 U.S.C. 6301-6308 (formerly the Federal Grant and Cooperative Agreement Act of 1977, Pub. L. No. 95-224), as well as general policy requirements applicable to recipients of Departmental financial assistance.

7 CFR Part 3017--USDA implementation of Governmentwide Debarment and Suspension (Nonprocurement) and Governmentwide Requirements for Drug-Free Workplace (Grants).

7 CFR Part 3018--USDA implementation of Restrictions on Lobbying. Imposes prohibitions and requirements for disclosure and certification related to lobbying on recipients of Federal contracts, grants, cooperative agreements, and loans.

7 CFR Part 3019--USDA implementation of OMB Circular A-110, Uniform Administrative Requirements for Grants and Other Agreements With Institutions of Higher Education, Hospitals, and Other Nonprofit Organizations.

7 CFR Part 3052--USDA implementation of OMB Circular No. A-133, Audits of States, Local Governments, and Non-profit Organizations.

7 CFR Part 3407--CSREES procedures to implement the National Environmental Policy Act of 1969, as amended.

29 U.S.C. 794 (section 504, Rehabilitation Act of 1973) and 7 CFR Part 15b (USDA implementation of statute)--prohibiting discrimination based upon physical or mental handicap in Federally assisted programs.

35 U.S.C. 200 et seq.--Bayh-Dole Act, controlling allocation of rights to inventions made by employees of small business firms and domestic nonprofit organizations, including universities, in Federally assisted programs (implementing regulations are contained in 37 CFR Part 401).

E. Confidential Aspects of Applications and Awards

When an application results in a grant, it becomes a part of the record of CSREES transactions, available to the public upon specific request. Information that the Secretary determines to be of a confidential, privileged, or proprietary nature will be held in confidence to the extent permitted by law. Therefore, any information that the applicant wishes to have considered as confidential, privileged, or proprietary should be clearly marked within the application. The original copy of an application that does not result in a grant (including those that are withdrawn) will be retained by the Agency for a period of one year. Other copies will be destroyed. Such an application will be released only with the consent of the applicant or to the extent required by law. An application may be withdrawn at any time prior to the final action thereon; however, withdrawn applications normally will not be returned.

F. Regulatory Information

For the reasons set forth in the final Rule-related Notice to 7 CFR part 3015, subpart V (48 FR 29114, June 24, 1983), this program is excluded from the scope of the Executive Order 12372 which requires intergovernmental consultation with State and local officials. Under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35), the collection of information requirements contained in this Notice have been approved under OMB Document No. 0524-0039.

G. Definitions

For the purpose of this program, the following definitions are applicable:

Administrator means the Administrator of the Cooperative State Research, Education, and Extension Service (CSREES) and any other officer or employee of the Department to whom the authority involved is delegated.

Authorized departmental officer means the Secretary or any employee of the Department who has the authority to issue or modify grant instruments on behalf of the Secretary.

Authorized organizational representative means the president, director, or chief executive officer or other designated official of the applicant organization who has the authority to commit the resources of the organization.

Department or *USDA* means the United States Department of Agriculture.

Grant means the award by the Secretary of funds to an eligible organization or individual to assist in meeting the costs of conducting, for the benefit of the public, an identified project which is intended and designed to accomplish the purpose of the program as identified in these guidelines.

Grantee means an organization designated in the award document as the responsible legal entity to which a grant is awarded.

Integrated means to bring the three components of the agricultural knowledge system (research, extension, and education) together around a problem area or activity.

Matching means that portion of allowable project costs not borne by the Federal Government, including the value of in-kind contributions.

Minority means Alaskan Native, American Indian, Asian-American, Black (African-American), Hispanic American, Native Hawaiian, or Pacific Islander. The Secretary will determine on a case-by-case basis whether additional groups qualify under this definition, either at the Secretary's initiative, or in response to a written request with supporting explanation (see Part I, D.).

Minority-serving institution means an academic institution whose enrollment of a single minority group or a combination of minority groups as defined in this section exceeds fifty percent of the total enrollment, including graduate and undergraduate and full- and part-time students. (Applicants applying under this category should indicate the current total enrollment of the institution in a cover letter.) An institution in this instance is an organization that possesses a significant degree of autonomy[4].

Peer review means an evaluation of a proposed project for scientific or technical quality and relevance performed by experts with the scientific knowledge and technical skills to conduct the proposed work or to give expert advice on the merits of an application.

Prior approval means written approval evidencing prior consent by an authorized departmental officer as defined above.

Project means the particular activity within the scope of the program supported by a grant award.

Project director means the single individual designated in the grant application and approved by the Secretary who is responsible for the direction and management of the project.

Project period means the period, as stated in the award document, during which Federal sponsorship begins and ends.

Research activity means a scientific investigation or inquiry which results in the generation of knowledge.

Secretary means the Secretary of Agriculture and any other officer or employee of the Department to whom the authority involved is delegated.

[4] Significant degree of autonomy is defined by being independently accredited as determined by reference to the current version of the *Higher Education Directory*, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042. (703-532-2300)

Small and mid-sized institutions are academic institutions with a current total enrollment of 15,000 or less including graduate and undergraduate and full- and part-time students and that are no higher than the 50th percentile of academic institutions funded by the National Research Initiative Competitive Grants Program in the past three years and are not within the top 100 Federally funded institutions (See Table 1. at the end of this document for an alphabetical listing of the most successful institutions.). (Applicants applying under this category should indicate the current total enrollment of the institution in a cover letter.) An institution in this instance is an organization that possesses a significant degree of autonomy[5].

[5] Significant degree of autonomy is defined by being independently accredited as determined by reference to the current version of the *Higher Education Directory*, published by Higher Education Publications, Inc., 6400 Arlington Boulevard, Suite 648, Falls Church, Virginia 22042. (703-532-2300)

Figure 1.
Flow Chart for Bridge Grant Eligibility

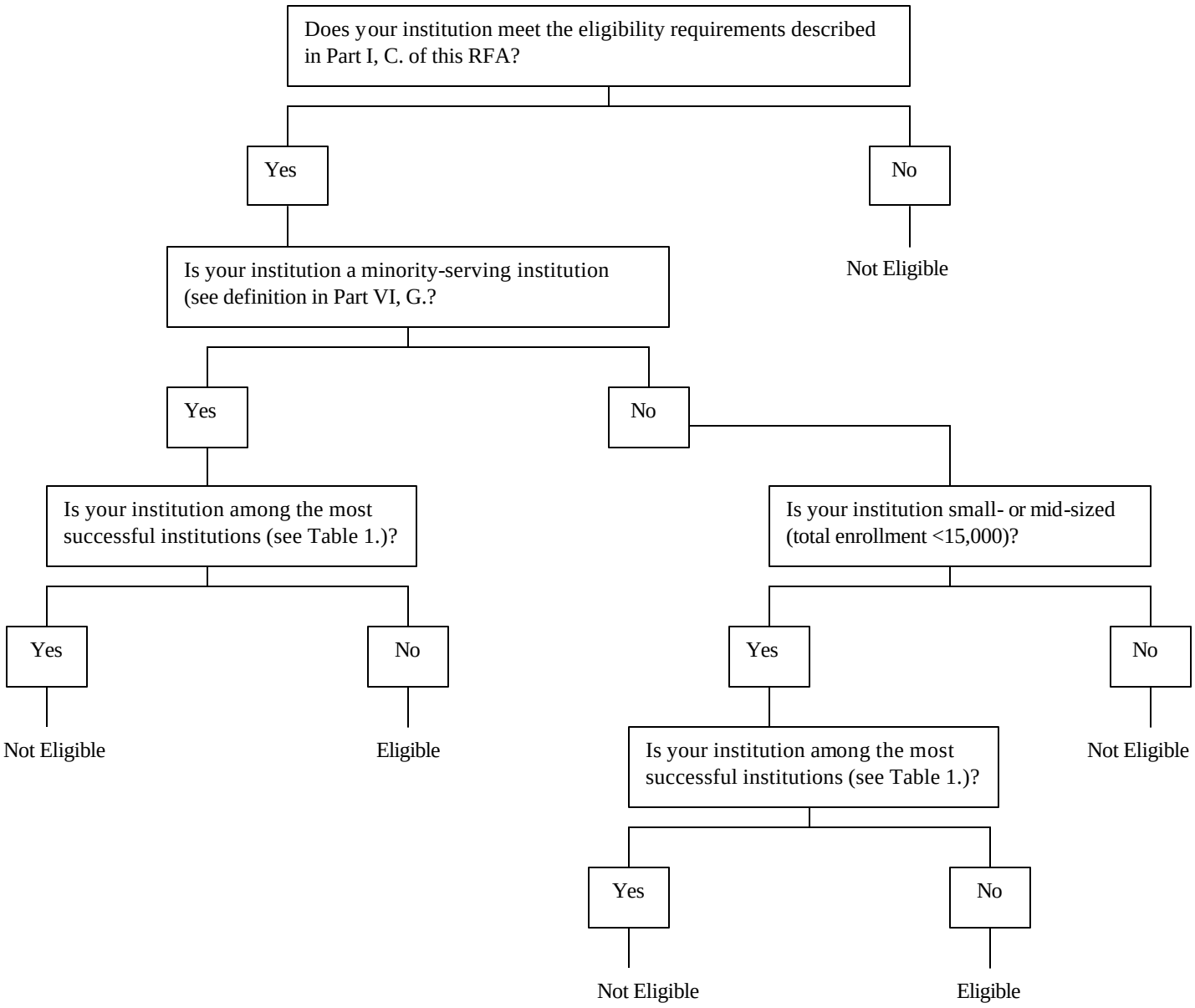

Table 1.
Most Successful Universities and Colleges Receiving Federal and/or National Research Initiative Funds [1]

Arizona State University Main Campus *
Auburn University *
Baylor College of Medicine
Boston University
Brown University
California Institute of Technology
Carnegie-Mellon University
Case Western Reserve University
Clemson University *
Colorado School of Mines *
Colorado State University
Columbia University
Cornell University
CUNY Mount Sinai School of Medicine
Dartmouth College
Drexel University *
Duke University
Emory University
Florida International University *
Florida State University
George Washington University *
Georgetown University
Georgia Institute of Technology
Harvard University
Indiana University Bloomington *
Indiana University Purdue University at Indianapolis
Iowa State University *
Johns Hopkins University
Kansas State University *
Louisiana State University
Massachusetts Institute of Technology
Medical College of Wisconsin
Medical University of South Carolina
Michigan State University
Michigan Technological University *
Mississippi State University
Montana State University *
New Mexico State University *
New York University
North Carolina State University
North Dakota State University *
Northwestern University
Ohio State University
Oklahoma State University *
Oregon Health Sciences University
Oregon State University
Pennsylvania State University
Princeton University
Purdue University
Rice University *
Rockefeller University
Rutgers, The State University of New Jersey
Scripps Research Institute
South Dakota State University *
Stanford University
State University of New York at Binghamton *
State University of New York at Buffalo *
State University of New York at Stony Brook
State University of New York Col. of Envir. Sci. & Forestry
State University of West Georgia *
Texas A&M University
Texas Tech University *
Thomas Jefferson University
Tufts University
University of Alabama Birmingham
University of Alaska Fairbanks *
University of Arizona
University of Arkansas Fayetteville *
University of California Berkeley
University of California Davis
University of California Irvine
University of California Los Angeles
University of California Riverside *
University of California San Diego
University of California San Francisco
University of California Santa Barbara

[1] Based on data from the table *Federal obligations for science and engineering research and development to the 100 universities and colleges receiving the largest amounts, ranked by total amount received: in fiscal year 2000* of *Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions* (National Science Foundation, accessible through the Internet at http://www.nsf.gov/sbe/srs/nsf02319/).

* Annotated institutions are not in the list for the most successful Federally funded, but were among the top 50th percentile of those funded by the National Research Initiative (Competitive, Special, and Facilities Research Grant Act (7 U.S.C. 450i(b)) over the past three years (fiscal years 1999 through 2001).

University of California Santa Cruz *
University of Chicago
University of Cincinnati
University of Colorado Boulder
University of Colorado Health Sciences Center *
University of Connecticut
University of Delaware *
University of Florida
University of Georgia
University of Hawaii Manoa
University of Idaho *
University of Illinois Chicago
University of Illinois Urbana-Champaign
University of Iowa
University of Kansas
University of Kentucky
University of Maine Orono *
University of Maryland Baltimore Prof Sch
University of Maryland Biotechnology Institute *
University of Maryland College Park
University of Massachusetts Amherst *
University of Massachusetts Medical School Worcester
University of Medicine and Dentistry of New Jersey
University of Miami
University of Michigan Ann Arbor
University of Minnesota Twin Cities
University of Mississippi *
University of Mississippi Medical Center *
University of Missouri Columbia
University of Missouri Rolla *
University of Missouri St. Louis *
University of Montana *
University of Nebraska Lincoln *
University of Nevada Las Vegas *
University of Nevada Reno *
University of New Hampshire *
University of New Mexico
University of North Carolina Chapel Hill
University of North Carolina Greensboro *
University of North Texas *
University of Notre Dame *
University of Oklahoma Health Sciences Center *
University of Pennsylvania
University of Pittsburgh
University of Rhode Island *
University of Rochester
University of South Carolina Columbia *
University of South Florida
University of Southern California
University of Southern Mississippi *
University of Tennessee Knoxville *
University of Texas at Austin
University of Texas Health Sci. Center San Antonio
University of Texas Health Science Center Houston
University of Texas MD Anderson Cancer Center
University of Texas Medical Branch Galveston
University of Texas SW Medical Center Dallas
University of Utah
University of Vermont
University of Virginia
University of Washington
University of Wisconsin Madison
University of Wisconsin Stevens Point *
University of Wyoming *
Utah State University
Vanderbilt University
Virginia Commonwealth University
Virginia Polytechnic Institute and State University
Wake Forest University
Washington State University *
Washington University
Wayne State University
West Virginia University *
Woods Hole Oceanographic Institute
Yale University
Yeshiva University New York

UNITED STATES DEPARTMENT OF AGRICULTURE
COOPERATIVE STATE RESEARCH, EDUCATION, AND EXTENSION SERVICE
NRI INTEGRATED PROGRAM

TABLE OF CONTENTS

To be placed immediately after the Proposal Cover Page (Form CSREES-2002)

CHECKLIST

All applications submitted under the NRI must contain the applicable elements outlined in these guidelines. The following checklist has been prepared to assist in ensuring that the application is complete and in the proper order prior to mailing:

? **Proposal Cover Page (Form CSREES-2002)**
Have all blocks been completed?
Have all Project Directors and the Authorized Organizational Representative (when required) signed the form?
Does one copy contain pen-and-ink signatures?
Have you included a telephone number where a message may be left for you?

? **Table of Contents**
Are page numbers included for each item?

? **Project Summary (Form CSREES-2003)**
Has the Project Summary been included, using the form provided?
Do the name and institution of all Project Directors appear on the form, or on the following page?
Does it include project objectives?
Does the Project Summary fit within the designated box on the form?
Has the box for "Standard Research Proposal" been checked?

? **Project Description**
Is the project fully described?
Does this section adhere to the format and page limitation, as specified?
Does this section begin as page 1, as specified?

? **References to Project Description**
Are all references cited?
Are all citations referenced?
Do all citations contain a title and are they in accepted journal format?

? **Facilities and Equipment**
Have you given a description of your facilities and equipment, sufficient to indicate that you will be able to carry out this project?

? **Appendices to Project Description**
Are they limited to 2 (as described in the instructions) firmly attached to the application?

? **Key Personnel** (Vitae and Publication Lists)
Are vitae included for all Project Directors, collaborators, and other senior personnel (see instructions)?
Is the vita current and pertinent?
Is the publication list complete and limited to the last four years?

? **Documentation from Collaborator(s) (where appropriate)**

? **Conflict of Interest List (Form CSREES-2007)**
Has a list been completed for each person who must submit a C.V.? Does the list include the four categories as appropriate?

? **Budget (Form CSREES-2004)**
Are annual and summary budgets included?

? **Budget Narrative**
Are budget items individually justified?

? **Matching** (if required)

? **Current and Pending Support (Form CSREES-2005)**
Have all current and pending projects been listed and summarized, **including this one**, for each Project Director listed on the Proposal Cover Page (Form CSREES-2002)?

? **Assurance Statement (Form CSREES-2008, where applicable)**
Has the project been approved by necessary Institutional Review Board(s)?
Has the form been signed by the Authorized Organizational Representative (where required)?

? **NEPA (Form CSREES-2006)**
Has the NEPA form been completed and included?

? **General**
Have you included the Personal Data on Project Director(s) (Page B of Form CSREES-2002) **only** on the original application?
Have you contacted the appropriate National Program Leader to discuss the suitability of the proposed work?
Does the application conform to all format and page limitations and deadline requirements?
Is there an original and 14 copies?
Are all copies complete?